

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0068241; AI19911; PER20090001** to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Town of Brusly
 Brusly Wastewater Treatment Facility
 P.O. Box 510
 Brusly, LA 70719

- II. **PREPARED BY:** Darlene Bernard

- DATE PREPARED:** March 22, 2010

- III. **PERMIT ACTION:** Reissue LPDES permit LA0068241, AI19911
 LPDES application received: November 25, 2009

- LPDES permit effective: August 1, 2005
 LPDES permit expires: July 31, 2010

EPA has not retained enforcement authority

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from an existing publicly owned treatment works serving the Town of Brusly.

- B. The permit application does not indicate the receipt of industrial wastewater.

- C. The facility is located at the end of Live Oak Drive in Brusly, West Baton Rouge Parish.

- D. The treatment facility consists of a three cell oxidation pond with aeration in the first and second cell and the Lemna System on the third cell. Disinfection is by chlorination.

- E. Outfall 001

Discharge Location: Latitude 30°24'28" North
 Longitude 91°17'18" West

Description: treated sanitary wastewater

Design Capacity: 0.700 MGD

Statement of Basis
 Town of Brusly/Brusly Wastewater Treatment Facility
 LA0068241; A119911
 Page 2

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter/Continuous Recorder

V. RECEIVING WATERS:

The discharge is into Choctaw Drainage Canal, thence into the Intracoastal Waterway in segment 120109 of the Terrebonne Basin. Segment 120109 of the Terrebonne Basin is listed on the 303(d) list of impaired water bodies.

The designated uses and degree of support for Segment 120109 of the Terrebonne Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 120109	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Not Supporting	N/A	Full	N/A	N/A

^{1/}The designated uses and degree of support for Segment 120109 of the Terrebonne Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Volume 5, Part B, Water Quality Inventory respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 120109 of the Terrebonne Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated January 5, 2010 from Rieck to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

Statement of Basis
Town of Brusly/Brusly Wastewater Treatment Facility
LA0068241; A119911
Page 3

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

The public notice is published in a local paper of general circulation and the Office of Environmental Services Public Notice Mailing List.

For additional information contact:

Darlene Bernard
Permits Division
Department of Environmental Quality
Office of Environmental Services
PO Box 4313
Baton Rouge, LA 70821-4313

Statement of Basis
Town of Brusly/Brusly Wastewater Treatment Facility
LA0068241; A119911
Page 4

IX. PROPOSED PERMIT LIMITS:

Subsegment 120109 of the Terrebonne Basin is listed on the 2006 303(d) list as impaired for Sulfates. However, subsegment 120109 was previously listed as impaired for Dissolved Oxygen, Nutrients, and Fecal Coliform. EPA approved two TMDLs for selected subsegments in the Terrebonne Basin. They are as follows: TMDLs for DO and Nutrients in Selected Subsegments in the Upper Terrebonne Basin on April 2, 2008, and TMDLs for Fecal Coliform Bacteria, Chlorides, Sulfates, TDS, Sediment., TSS and Turbidity on April 19, 2007. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

Sulfates

Based on the size and type of the facility the Department believes that there is little potential for the discharges to have levels of sulfates that would exceed state water quality standards.

Fecal Coliform

As per the TMDL, "for fecal coliform bacteria, LDEQ's policy is to set wastewater permit limits no higher than water quality criteria (i.e., criteria are met at end-of-pipe). As long as point source discharges of treated wastewater contain parameter levels at or below these permit limits, they should not be a cause of exceedances of the fecal coliform bacteria water quality criteria. Therefore, no change in the permit limits is required".

Dissolved Oxygen

As per the TMDL, there are two facilities that required changes to their WLAs. They are the Alma Plantation, and the Ashland Plantation. Reductions from other point source discharges are not required as a result of this TMDL. CBOD₅ is used as a method to measure the amount of dissolved oxygen in the waste stream utilized by organisms during decomposition of organic matter. Therefore, to protect against the potential for discharges of DO consuming pollutants and for discharges of organic material at levels exceeding state water quality standards, CBOD₅ limits have been placed in the permit.

Nutrients

As per the TMDL, "because no reductions to nutrients were required, it is assumed that the point sources may continue to discharge at their current concentration level of nutrients and not make any deleterious effect on water quality". Therefore, ammonia-nitrogen will remain in the permit.

Statement of Basis
Town of Brusly/Brusly Wastewater Treatment Facility
LA0068241; A119911
Page 5

Final Effluent Limits:

OUTFALL 001

Final effluent limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	58	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this type and size and the previous permit.
TSS	88	15 mg/l	23 mg/l	Since there are no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	32	5.46 mg/l	10.92 mg/l	Best professional judgment based on receiving stream data, stream impairments, facility flow, and previous permit.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as

Statement of Basis
 Town of Brusly/Brusly Wastewater Treatment Facility
 LA0068241; AI19911
 Page 6

Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No LA0068241:	Issued:	July 15, 2005
	Effective:	August 1, 2005
	Expired:	July 31, 2010

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (Design 0.70 MGD)

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD ₅	10 mg/l	15 mg/l	1/week	3-Hour Composite
TSS	15 mg/l	23 mg/l	1/week	3-Hour Composite
Ammonia-Nitrogen	5.46	10.92	1/week	3-Hour Composite
Fecal Coliform	200	400	1/week	Grab
pH	6-9 Standard Units		1/week	Grab

Statement of Basis
 Town of Brusly/Brusly Wastewater Treatment Facility
 LA0068241; AI19911
 Page 7

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspection performed for this facility :

Date – September 8, 2008

Inspector - LDEQ

Findings and/or Violations –

Hurricane facility assessment was performed. The treatment plant was still operational with no flooding. An inspection of the facility revealed no damage observed.

B) Compliance and/or Administrative Orders

A review of EDMS revealed that there are no recent enforcement actions administered against this facility.

C) DMR Review

A review of EDMS revealed the following excursions for the period January, 2007 to September, 2009:

Date	Parameter	Permit Limit	Reported Value
01-07	TSS (weekly avg.)	23 mg/l	32 mg/l
02-07	Ammonia Nitrogen	5.46 mg/l	6.113 mg/l
04-07	TSS (monthly avg.)	15 mg/l	20 mg/l
	TSS (weekly avg.)	23 mg/l	33 mg/l
08-07	TSS (weekly avg.)	23 mg/l	31 mg/l
05-08	TSS (monthly avg.)	15 mg/l	27 mg/l
	TSS (weekly avg.)	23 mg/l	81 mg/l
	TSS (monthly loading avg.)	88 lbs/day	158.94
03-09	TSS (monthly avg.)	15 mg/l	46 mg/l
	TSS (weekly avg.)	23 mg/l	157 mg/l
	TSS (monthly loading avg.)	88 lbs/day	215.69 lbs/day
04-09	TSS (monthly avg.)	15 mg/l	17 mg/l

Statement of Basis
 Town of Brusly/Brusly Wastewater Treatment Facility
 LA0068241; A119911
 Page 8

XII. ADDITIONAL INFORMATION:

LDEQ reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future. Additional limitations and/or restrictions are based upon water quality studies and can indicate the need for advanced wastewater treatment. Water quality studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5mg/L CBOD₅ and 2 mg/L NH₃-N. Prior to upgrading or expanding this facility, the permittee should contact LDEQ to determine the status of the work being done to establish future effluent limitations and additional permit conditions. In accordance with LAC 33:IX.2903., this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301 (b) (2) (Cc) and (CD); 304 (b) (2); and 307 (a) (2) of the Clean Water Act, if the effluent standard or limitations are issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b. Controls any pollutant not limited in the permit; or
- c. Require reassessment due to change in 303(d) status of waterbody; or
- d. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.700 MGD.

Effluent loadings are calculated using the following example:

$$\text{CBOD: } 8.34 \text{ gal/lb} \times 0.700 \text{ MGD} \times 10 \text{ mg/l} = 58 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.5 and 1.0 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
CBOD ₅	1/week	3-hr composite
Total Suspended Solids	1/week	3-hr composite
Ammonia Nitrogen	1/week	3-hr composite
Fecal Coliform Bacteria	1/week	Grab
pH	1/week	Grab

Statement of Basis
 Town of Brusly/Brusly Wastewater Treatment Facility
 LA0068241; A119911
 Page 9

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, it is recommended that LDEQ Option 1 Pretreatment Language be included in LPDES Permit LA0068241. This language is established for municipalities that do not have either an approved or required Pretreatment program. This recommendation is in accordance with 40 CFR Part 403 regulations, the General Pretreatment Regulations for Existing and New Sources of Pollution contained in LAC Title 33, Part IX, Chapter 61 and the Best Professional Judgement (BPJ) of the reviewer.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

Statement of Basis
Town of Brusly/Brusly Wastewater Treatment Facility
LA0068241; A119911
Page 10

XIV. REFERENCES:

Louisiana Water Quality Management Plan, Vol. 10, "Wasteload Allocations and Discharger Inventory", Louisiana Department of Environmental Quality, 2009.

Louisiana Water Quality Management Plan, Vol. 5-B, "Water Quality Inventory", Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 2009.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 23 - "The LPDES Program", Louisiana Department of Environmental Quality, 2009.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Town of Brusly, Brusly Wastewater Treatment Facility, November 25, 2009.